NATURAL RESOURCE TECHNOLOGY
ENVIRONMENTAL CONSULTANTS

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Report:	**Weekly Progress Report**
Project:	**Former North Plant MGP Site Removal Action Construction Waukegan, Illinois**
Date:	August 6, 2014
Prepared By:	Natural Resource Technology, Inc. Andrew Millspaugh, PE Mark Walter, PE Glenn Luke, PE
Submitted To:	Integrys Business Support, LLC Naren M. Prasad, PE
Activity Period:	July 28, 2014 through August 2, 2014

Natural Resource Technology, Inc. Personnel on Site

- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**
- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**

USEPA Personnel on Site

- Brad Benning, **USEPA**

Integrys/North Shore Gas Personnel on Site

- Naren Prasad, **Project Manager**

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**
- McClure Engineering Associates, **Registered Land Surveyor**
- Stars Fence, **Fence Subcontractor**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**
- Michael Kuhn, **Lake County Health Department**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 8/2/14: 73,702.13 Tons
- In Situ Solidification/Stabilization (ISS) through 7/26/14: 299,589.62 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 80 loads (1,609.20 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill) and 10 loads (172.37 tons) of soil and debris for disposal at Waste Management's Laraway Landfill in Joliet, IL (Laraway Landfill).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of pertinent site features, ISS swell grade elevations, general fill elevations, historical foundations, etc.
- Management, scheduling, and coordination with McClure Engineering for ISS swell grade documentation survey on Friday (8/1).
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (7/31).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Implemented fugitive emission controls including Rusmar odor control foam, covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Began demobilizing of ISS equipment including the Manitowoc 4000w, Delmag RH-28, and ISS batch plant.
- Loaded 1,609.20 tons (80 loads) of soil and debris for direct disposal at Countryside Landfill and172.37 tons (10 loads) at Laraway Landfill.
- Imported 3,041.16 tons (124 loads) of general fill for placement on Parcel 4 and the area of the former Waukegan Tar Pit.

- Implemented fugitive emission controls including water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (7/31). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

McClure Engineering Associates

- Completed documentation survey of completed ISS swell grades on Parcel 4 on Friday (8/1).

Changes to Scope of Work

- None.

Open/Outstanding Items

- None.

Work planned for the week of August 4, 2014 through August 9, 2014

- Perform perimeter Air Monitoring.
- Continue demobilization of site equipment.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Areas A and B, and on Parcel 4.
- Transport material for disposal at WMI's Countryside and Laraway Landfills.
- Import and place general fill in Removal Action Area A and Parcel 4.
- Begin removal of underground structures extending outside of Removal Action Area A.

A Weekly Progress Report will be issued throughout the duration of field activities for this Time Critical Removal Action. A written report summarizing the results of the Removal Action will be provided following completion of all field activities. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:

Photo 1: Loading material for transportation and disposal.

Direction: Southeast

Photo Date: 7/31/14

Photo Taken By: MDW

Photo 2: Application of odor suppressing foam to ISS swell material stockpiles in Removal Action Area A.

Direction: South

Photo Date: 7/31/14

Photo Taken By: MDW

Photo 3: Placement of general fill on graded ISS swell material in Parcel 4.

Direction: North

Photo Date: 8/1/14

Photo Taken By: MDW

ATTACHMENT 1

1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site

Date Period: July 28 – August 3, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of July 28 – August 3, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 6 PUF air samples including one duplicate air sample and one filed blank air sample were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Jason Wuerch Erik Ehrengren
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week July 28 – August 3, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through July 24, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on July 22 and July 24, 2014.

All Real-time Perimeter Ambient Air Monitoring data for the prior week July 21 – 27, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario on July 30, 2014.

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Figure 1: Site Map

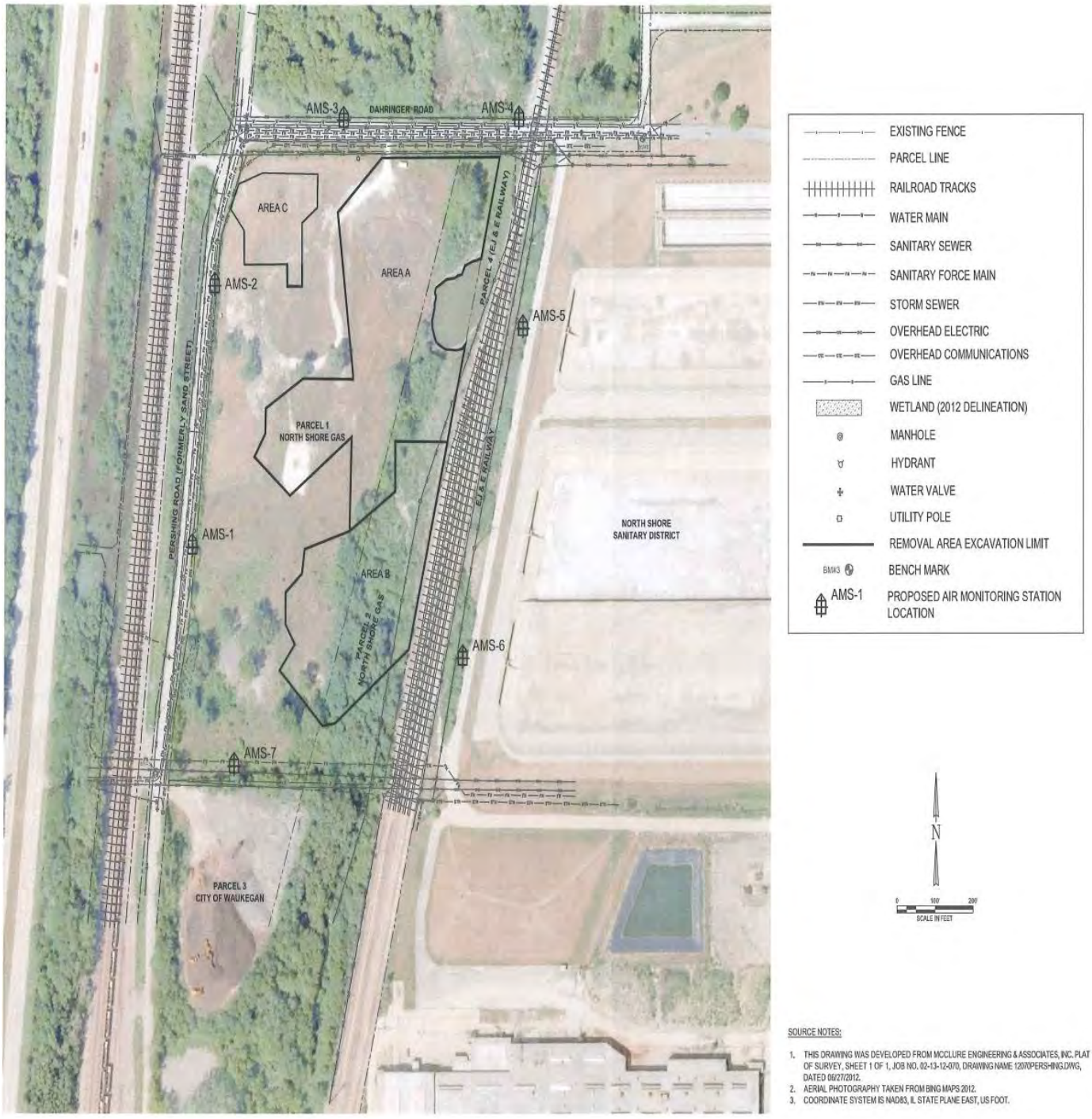

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Table 3
Sampling Average Concentrations through July 24, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	**Acceptable Air Concentrations at TCR* 1E-4**	**Acceptable Air Concentrations at TCR* 1E-5**	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.879	1.343	1.530	1.484	1.676	1.312	0.912
Ethylbenzene	2,800	280	28	1.114	1.429	2.052	2.326	2.893	1.662	1.144
Naphthalene	30	21	2.1	6.423	9.177	11.292	11.722	16.857	9.051	6.909
Toluene	5,000	5,000	5,000	1.827	2.309	2.142	1.798	2.031	2.093	1.839
Xylenes, Total	400	400	400	2.758	3.234	3.301	3.084	3.670	3.245	3.075
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

1) If all sample results are non-detect no average is calculated.
2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
3) * TCR - Target Cancer Risk
4) AAC - Acceptable air concentrations.
5) Result shaded gray - value exceeds AAC for TCR 1E-4.
6) Result bold - value exceeds AAC for TCR 1E-5.
7) Result underlined - value exceeds AAC for TCR 1E-6.
8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	**Acceptable Air Concentrations at TCR* 1E-4**	**Acceptable Air Concentrations at TCR* 1E-5**	Acceptable Air Concentrations at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 2 7/22/2014		Station 3 7/22/2014		Station 6 7/22/2014		Station 7 7/22/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.1 U	1.344	1.1 U	1.530	1.2 U	1.312	1.1 U	0.912
Ethylbenzene	2,800	280	28	1.5 U	1.424	1.5 U	2.052	1.6 U	1.662	1.6 U	1.144
Naphthalene	30	21	2.1	2.8	9.116	7.8	11.292	11	9.051	7.9	6.909
Toluene	5,000	5,000	5,000	1.3 U	2.316	1.3 U	2.142	1.4 U	2.093	1.3 U	1.839
Xylenes, Total	400	400	400	4.5 U	3.245	4.5 U	3.301	4.7 U	3.245	4.7 U	3.075
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Chrysene	640	64	6.4	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC

Notes:

1) Avg - Cumulative average concentration.
2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
3) * TCR - Target Cancer Risk
4) AAC - Acceptable air concentrations.
5) Result underlined - value exceeds AAC for TCR 1E-6.
6) Result bold - value exceeds AAC for TCR 1E-5.
7) Result shaded gray - value exceeds AAC for TCR 1E-4.
8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
9) NA - Not analyzed.
10) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	**Acceptable Air Concentrations at TCR* 1E-4**	**Acceptable Air Concentrations at TCR* 1E-5**	Acceptable Air Concentrations at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 1 7/24/2014		Station 2 7/24/2014		Station 4 7/24/2014		Station 5 7/24/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.9	0.879	1.2	1.343	5.9	1.484	3.3	1.676
Ethylbenzene	2,800	280	28	3.7	1.114	1.9	1.429	9.4	2.326	6.4	2.893
Naphthalene	30	21	2.1	**36**	6.423	15	9.177	**60**	11.722	**45**	16.857
Toluene	5,000	5,000	5,000	2.5	1.827	1.6	2.309	5.7	1.798	4.1	2.031
Xylenes, Total	400	400	400	4.4	2.758	4.3 U	3.234	7.6	3.084	5.8	3.670
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

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7) Result shaded gray - value exceeds AAC for TCR 1E-4.
8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
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